## THE CLAIMS

1-12. (cancelled)

13. (previously presented) A cladding tube for nuclear fuel, the cladding tube being made of a zirconium-based alloy suitable for use in a corrosive environment where it is subjected to increased radiation, the alloy having a quality and impurity level, including up to 1600 ppm O and up to 120 ppm Si, suitable for use in nuclear reactors, the alloy consisting essentially of:

0.65-1.6 percent by weight Nb;

0.3-0.6 percent by weight Fe;

0.65-0.85 percent by weight Sn; and

the balance being Zr.

14-21. (canceled)

22. (previously presented) The cladding tube according to claim 13, wherein at least a part of an inner circumference of the cladding tube is provided with a layer of a material that is more ductile than the alloy.

23. (previously presented) The cladding tube according to claim 22, wherein the layer comprises a zirconium-based alloy having a total content of alloying elements that does not exceed 0.5 percent by weight.

24-34. (canceled)

35. (previously presented) A cladding tube for nuclear fuel, the cladding tube being made of a zirconium-based alloy suitable for use in a corrosive environment where it is subjected to increased radiation, the alloy having a quality and impurity level, including, optionally, 500-1600 ppm O and, optionally, 50-120 ppm Si, suitable for use in nuclear reactors, the alloy consisting essentially of:

0.65-1.6 percent by weight Nb;

0.3-0.6 percent by weight Fe;

0.65-0.85 percent by weight Sn; and

the balance being Zr.

36. (previously presented) The cladding tube according to claim 35, wherein at least a part of an inner circumference of the cladding tube is provided with a layer of a material that is more ductile than the alloy.

37. (previously presented) The cladding tube according to claim 36, wherein the layer comprises a zirconium-based alloy having a total content of alloying elements that does not exceed 0.5 percent by weight.

38. (previously presented) A cladding tube for nuclear fuel, the cladding tube being made of a zirconium-based alloy suitable for use in a corrosive environment where it is subjected to increased radiation, the alloy having a quality and impurity level, including 500-1600 ppm O and 50-120 ppm Si, suitable for use in nuclear reactors, the alloy consisting essentially of:

0.65-1.6 percent by weight Nb;

0.3-0.6 percent by weight Fe;

0.65-0.85 percent by weight Sn; and

the balance being Zr.

39. (previously presented) The cladding tube according to claim 38, wherein at least a part of an inner circumference of the cladding tube is provided with a layer of a material that is more ductile than the alloy.

40. (previously presented) The cladding tube according to claim 39, wherein the layer comprises a zirconium-based alloy having a total content of alloying elements that does not exceed 0.5 percent by weight.

41. (new) A cladding tube for nuclear fuel, the cladding tube being made of a zirconium-based alloy suitable for use in a corrosive environment where it is subjected to increased radiation, the alloy having a quality and impurity level suitable for use in nuclear reactors, the alloy consisting essentially of:

0.65-1.6 percent by weight Nb;

0.3-0.6 percent by weight Fe;

0.65-0.85 percent by weight Sn; and

the balance being Zr.

42. (new) The cladding tube according to claim 41, wherein at least a part of an inner circumference of the cladding tube is provided with a layer of a material that is more ductile than the alloy.

43. (new) The cladding tube according to claim 42, wherein the layer comprises a zirconium-based alloy having a total content of alloying elements that does not exceed 0.5 percent by weight.